Work Ord March-28-13 1	er ID 99000 0:48:20 AM		·····	*99000*									
Item ID: Revision ID:	D3121-23			ccept	*N900	040	100) * s	Setup S	Start Stop	*N:	S1*	
Item Name: Start Date: Required Date: Reference:	Bearing 3/27/13 Start Qty: 3/27/13 Req'd Qty:		100 *50* *50*		Cust Item I Customer:	I D:				отор	^N:	S7*	
Approvals:	Process Plan:MC_=		l .	Tooling: SPC (Y/N):		ate:		F		Start Stop	*NI *NI	R1* R2*	
Sequence ID/ Work Center I	Operation Description			Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Rejec Qty		Reject Number	Insp. Stamp	
Draw Nbr	Revision Nbr									,			
D3121	Rev E				•								
*100 *100* Purchasing Purchasing	Iss	e mo ue P/O: 1946	Bearing as pe	0.00 0.00 r Dwg D3121Possible S ZZMaterial release note	Supplier: is required			Cò	C13	10 g	102	100	
*110 * 1 1 \\ *11 \\ *Packaging Packaging	M	ect for Damage & M emo sure Material Release		0.00				166	.			Sp. 3-4-3	
120 *120* QC Quality Control	M.	imensions to drawing emo pect diimensions as		0.00 Smf 13.4 0.00 and attached certification	-3 n Dwg Rev			100					

					I						DQA:	Date:	
NCR:	Yes	/ No			,	WORK ORDER NON-C	100	NFORI\	MANCE / UPDATE				•
						,					QA Closed:	Date:	
Work Orde	or.	•				DISPOSITION			AG	PROCESS			
	-				1	Rework		i	⊢	sstube all Fab	Dro	Water Jet d. Eng. Coor.	Engineering Quality
Part N	۷O. <u>-</u>				 	Scrap Use-as-is			$\overset{\circ}{\longmapsto}$	nishing		e/Packaging	Other
NCR i	No				:	Work Order Update]		~ —	posite	(CG) Stor	Supplier	
Root					Descri	ption of work order update		nitial	Action		Sign &	-	
Cause		Date	Step	Qty	, (or Non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector
Doc/Data	Ш				ı								
Equip/Tooling	Ш							į				٠.	
Operator					'								
Material	Ш											:	
Setup									·				
Other													
Process						·							
Supplier													
Training													
Unapproved													
·-						F	AUL	T CATE	GORY				
Landi	ng G	ear			1	General		_		_		_	_
		Bending				Bend		Grain			Ovalized		Pressure/Forced
		Centre No	ot Concer	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
		Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld
		Crushed/	Crimped.		1	Burrs		Instruct	ions Incomplete/Unclear		Part Lost/Mi	issing	Wrong Stock Pulled
		Cuffs			:	Contamination] Mainte	nance		Part Moved		
	П	Heat Trea	ıt		1	Countersink		Mislabe	led		Positioned V	Vrong	
	П	Inspection	n Strip in	Tube		Cut Too Short	Misread.			Power Loss/	Surge	Other	
	П	Ripples in	Bend			Drill Holes	Offset						

Out of Calibration

Out of Sequence

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish Folio

Work Order ID 99000 March-28-13 10:48:20 AM					*990) / //					Page 2			
Item ID: Revision ID: Item Name:	D3121-23 Bearing				Accept	*N900	040	100)* s	etup S	tart Stop	*NS	S1*	·
	3/27/13	Start Qty: 50.00 Req'd Qty: 50.00		*50* *50*		Cust Item I Customer:	D:		·			IVA	\	
Approvals:	Process Pla	an:	Date:		Tooling: _ SPC (Y/N):		ate:		P		tart Stop	*NI *NI	₹1* ₹2*	
Sequence ID/ Work Center II 130 *120* Packaging Packaging)	Operation Description Identify as per dwg & Sto	ck Locatio	2123	Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Code	Accept Qty	Rejec Qty		Reject Number	Insp. Stamp	3
140 *1111 * QC Quality Control		QC21- Final Inspection -	Work Orde	r Release	0.00						31	4/3	H	-
					-					ple	5-0 ^L	1.3.	1	

NCR:	Yes	/	No
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DQA: _____ Date: ____

NCR: Y	es / No				WORK ORDER NON-	CONFOR	MANCE / UP	DATE	QA Closed:	Date	:			
Work Orde	r.				DISPOSITION		AGAINST DEPARTMENT/PROCESS							
	Part No.				Rework Scrap	-i · I	Skid-tube Crosstube Machining Small Fab			Water Jet d. Eng. Coor.	Engineering Quality			
NCR N	lo			 	Use-as-is Work Order Update	Ther	moforming Large Fab	Finishing Composite	Rec/Stoi	re/Packaging Supplier	Other			
Root				Descri	ption of work order update	Initial	Ac	tion	Sign &					
Cause	Date	Step	Qty		or Non-conformance	Chief Eng	Desc	ription	Date	Verification	QC Inspector			
Doc/Data Equip/Tooling										`.				
Operator														
Material		1												
Setup														
Other														
Process	_		'											
Supplier	_													
Training	_													
Unapproved		<u>l</u>	<u> </u>			AULT CATE	ECOPY		<u> </u>	<u> </u>				
Landin	ng Gear	•			General	AULI CATI	GONT		 					
Lanuin	Bending			Г	Bend	Grain			Ovalized		Pressure/Forced			
}	Centre No	ot Conce	ntric to (_{2/5}	BOM/Route	Hardw	are		Over/Under	tolerance	Temperature/Cure			
	Cracks	or correct), <u> </u>	Broken/Damaged		tion Incomplete		Part Incorre	-	Weld			
Ì	Crushed/	Crimped		<u> </u>	Burrs	\vdash	tions Incomplete/	'Unclear	Part Lost/M	— —	Wrong Stock Pulled			
İ	Cuffs				Contamination	 -	enance		Part Moved	· -				
Ì	Heat Trea	et			Countersink	Mislab	eled		Positioned \	Vrong				
ŀ	Inspectio		Tube		Cut Too Short	Misrea	d		Power Loss/	'Surge	Other			
ľ	Ripples in				Drill Holes	Offset		<u> </u>						
Ī	Torque W		xtrusion	,	Drawing	Out of	Calibration							
Ī	Turning S				Finish	Out of	Sequence							
Ī	Wave/Tw	ist in Tul	oe .	. [Folio	Outsid	e Dimensions			-				

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

March-28-13 10:48:20 AM

Work Order ID:

99000

Parent Item:

Comments:

D3121-23

Parent Item Name:

Bearing

200....

IPP A: 04.02.19 New Issue KJ/DS

IPP Rev:B ECN 1060 07-11-12 DD verified by:EC

Start Date: 3/27/13

Required Date: 3/27/13

Page 1

Start Qty: 50.00

Required Qty: 50.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
6900ZZ Bearing		Purchased	No			100	Each	0.0000	1	58 1	00		

100x Sp13-4-3.

NCR:	Yes /	No				WORK ORDER NON-O	100	NFORM	MANCE / UPI	DATE						
	,								•		QA Clo	osed:	Da	ate:		
Work Orde	er:					DISPOSITION				AGAINST DE	PARTN	1ENT/	/PROCESS			
Part No			Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite		Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier				Engineering Quality Other	-			
							J								1	
Root					Descri	ption of work order update	1	Initial	Act		Sign	&				
Cause	D	ate	Step	Qty	(or Non-conformance	Ch	nief Eng	Descr	ription	Da	te	Verification	<u>n</u>	QC Inspector	_
Doc/Data										•		`				
Equip/Tooling		1									1		` .			
Operator	\Box	1														
Material																
Setup																
Other								i								
Process	\dashv															
Supplier																
Training																
Unapproved	L						<u> </u> Δ111	T CATE	GORY			_	<u> </u>			_
Landii	ng Gear			·····		General	70.	- CAIL	<u> </u>							
Landi		ding				Bend	Г	Grain			Ovalize	ed			Pressure/Forced	
	⊢	_	t Concer	ntric to ()/s	BOM/Route		Hardwa	re	 	⊣		tolerance		Temperature/Cur	e
	Cra		Conce	101000	,,	Broken/Damaged		4	on Incomplete		Part In				Weld	
	—		rimped.			Burrs		4 `	ions Incomplete/l	Jnclear	Part Lo			\vdash	Wrong Stock Pulle	ed
	Cuf		annpes.			Contamination		Mainte	•		Part M		_		ı C	
	$\boldsymbol{\vdash}$	it Treat	t		-	Countersink	\vdash	Mislabe	,		Positio					
	-		Strip in	Tube		Cut Too Short		Misread			Power		-		Other	
		ples in	•			Drill Holes		Offset		<u> </u>	_	·	-	نے		
	⊢ → ``		aves in E	xtrusior	, <u> </u>	Drawing	Out of Calibration					· <u>·</u>				

Out of Sequence

Outside Dimensions

DQA: _____ Date:

Turning Sequence

Wave/Twist in Tube

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G



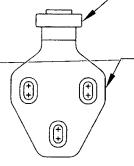
DESIG	#	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHEC	KED	APPROVED	DRAWING NO. REV. E
	911	M	D3121 SHEET 1 OF 10
DATE			TITLE SCALE
07.1	1.07		BRACKET ASSEMBLY 1:2
Α		02.04.15	NEW ISSUE
В		03.01.16	ADD RIDGES; ADD MAT'L PROP; FIX P/N ADD -141/-143/-144/-145/-146
С		04.02.17	ADD CLEARANCE; USE -241 BEARING
D	······	06.05.17	D3121-25 CAP WAS 1.024, NOW 1.000
E		07.11.07	ADD TOLERANCE TO 0.032 (DETAIL B)



D3121-21 BOLT (1) D3121-241 BEARING ASSEMBLY (1)

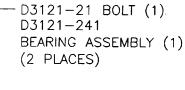
D3121-041 BRACKET ASSEMBLY

(REPLACES PREMIER P/N B30-23000-33)

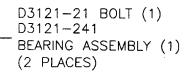


. 0

D3121--11-BRACKET



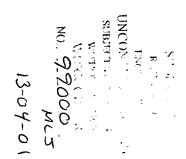
D3121-13/-14 BRACKET



D3121-15/-16 BRACKET

D3121-043 (SHOWN) / D3121-044 (OPPOSITE) BRACKET ASSEMBLY

(REPLACES PREMIER P/N B30-23000-37/-38)



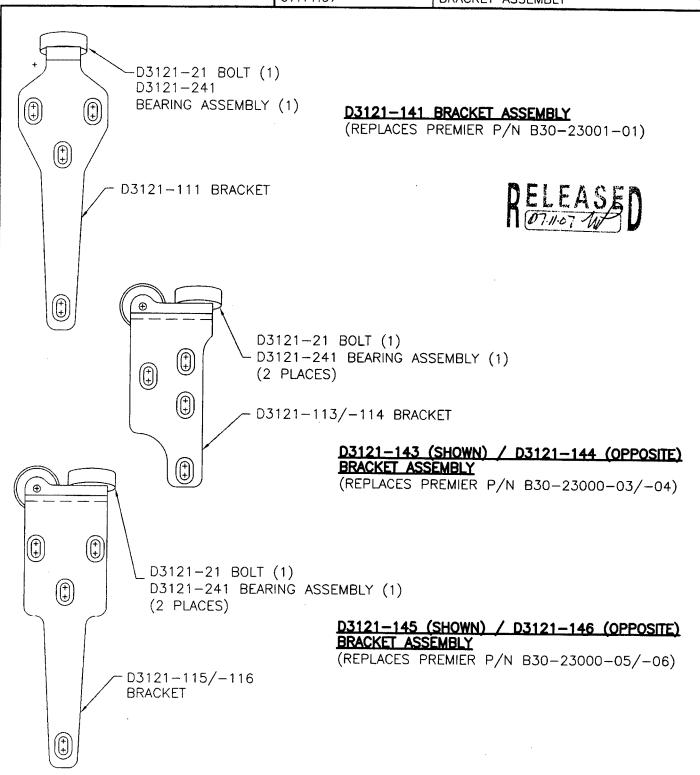
D3121-045 (SHOWN) / D3121-046 (OPPOSITE) BRACKET ASSEMBLY

(REPLACES PREMIER P/N B30-23000-35/-36)

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CHECKED	APPROVED	DRAWING NO.	REV. E
4		D3121	SHEET 2 OF 10
DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:2

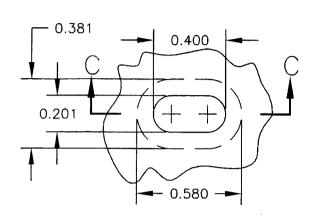


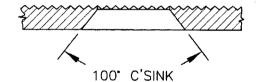
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CHECKED	APPROVED,	DRAWING NO.	REV. E
4	-#	D3121	SHEET 3 OF 10
DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:1





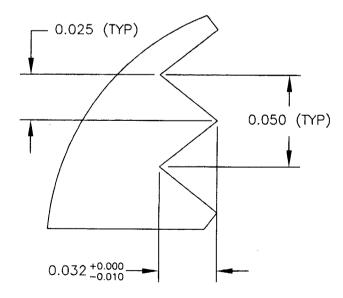


SECTION



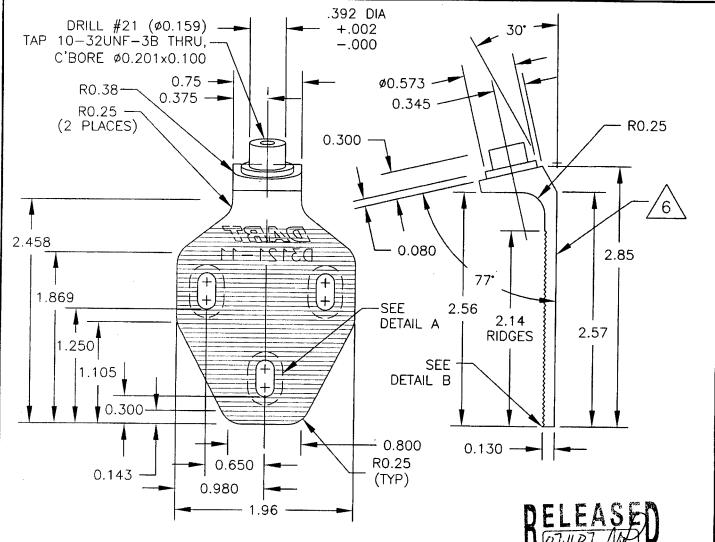
DETAIL B: RIDGE DETAIL PARTIAL SECTION

SCALE 1:20





DESIGN	DRAWN BY		OSPACE LTD ONTARIO, CANADA
CHECKED	APPROVED,	DRAWING NO.	REV. E
#	-#	D3121	SHEET 4 OF 10
DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:1,



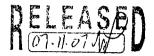
D3121-11 BRACKET

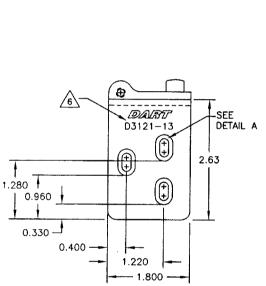
- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
 MIN ULTIMATE TENSILE = 150 ksi
 MIN YIELD TENSILE = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N & LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

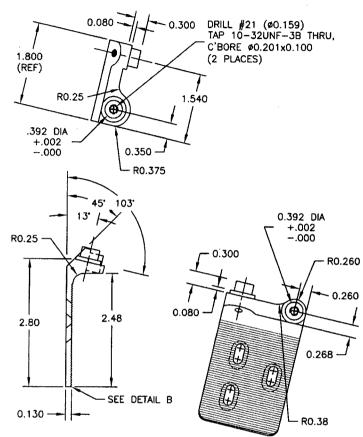
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DESIGN #	DRAWN BY	DART AEROSP, HAWKESBURY, ONTARIO	
CHECKED	APPROVED,	DRAWING NO.	REV. E
4	 	D3121	SHEET 5 OF 10
DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:2







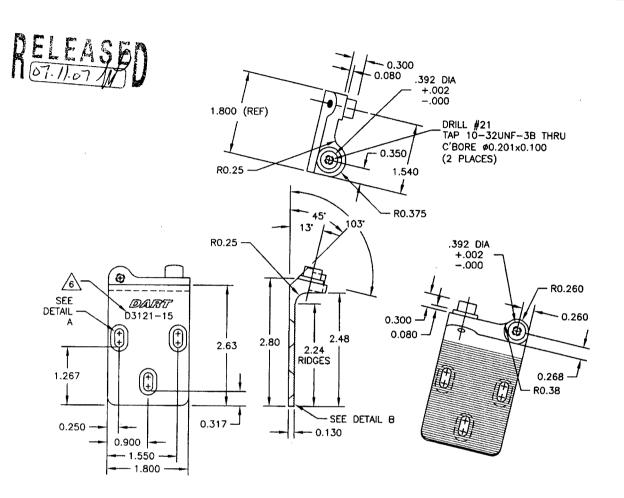
D3121-13 BRACKET (SHOWN) D3121-14 BRACKET (OPPOSITE)

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
 MIN ULTIMATE TENSILE STRENGTH = 150 ksi
 MIN YIELD TENSILE STRENGTH = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N & LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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91		D3121	SHEET 6 OF 10
DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:2



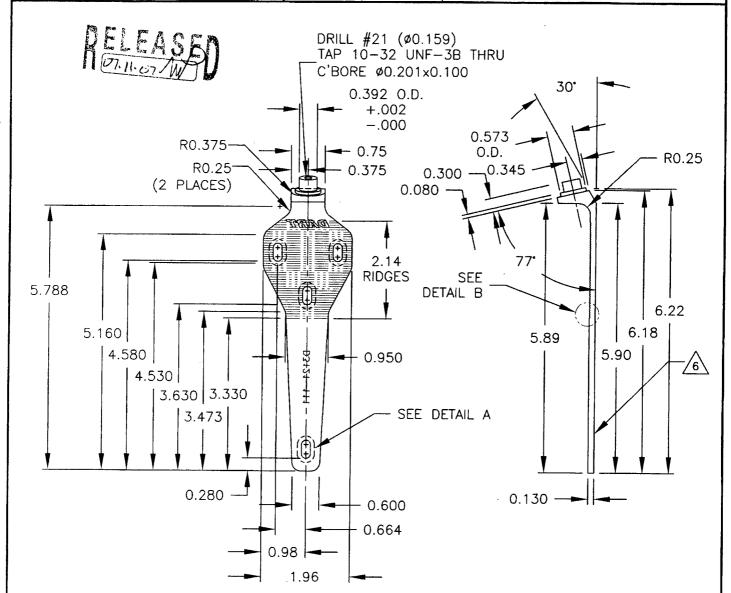
D3121-15 BRACKET (SHOWN) D3121-16 BRACKET (OPPOSITE)

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
 MIN ULTIMATE TENSILE = 150 ksi
 MIN YIELD TENSILE = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N AND LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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CHECKED _	APPROVED	DRAWING NO.	REV. E	
#		D3121	SHEET 7 OF 10	
DATE		TITLE	SCALE	
07.11.07		BRACKET ASSEMBLY	1:2	



D3121-111 BRACKET

- 1) REPLACES PREMIER P/N B32-23001-11
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B) MIN ULTIMATE TENSILE = 150 ksi

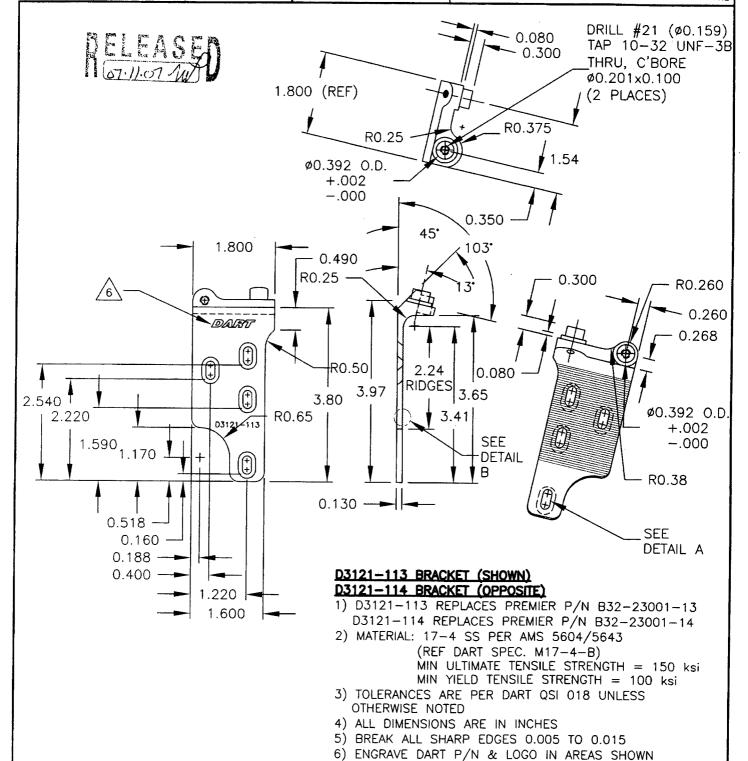
MIN YIELD TENSILE = 100 ksi

- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHEWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN
- 7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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DESIGN #	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
CHECKED	APPROVED	DRAWING NO.	REV. E		
#	1	D3121	SHEET 8 OF 10		
DATE		TITLE	SCALE		
07.11.07		BRACKET ASSEMBLY	1:2		

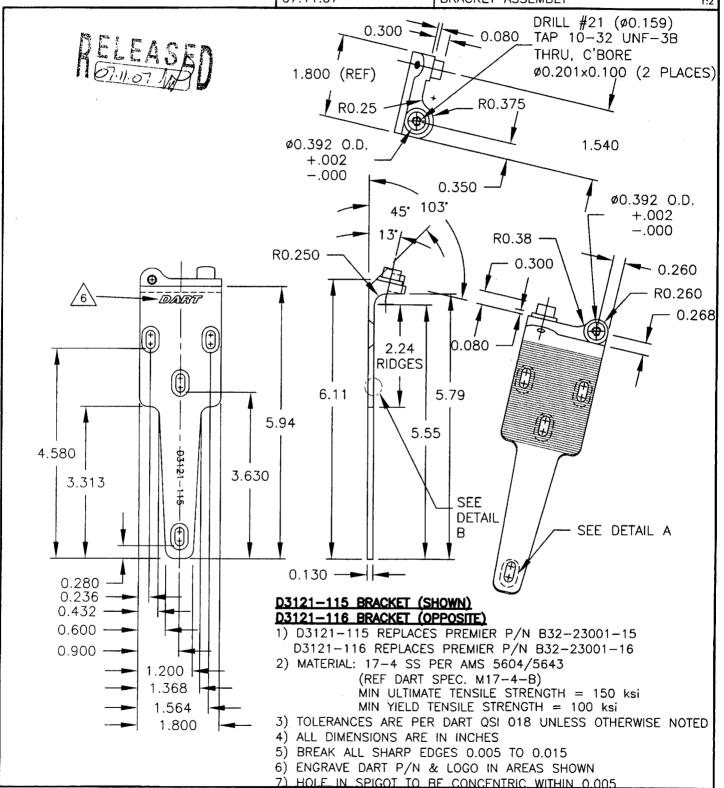


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7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

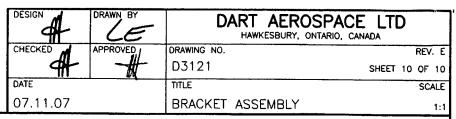


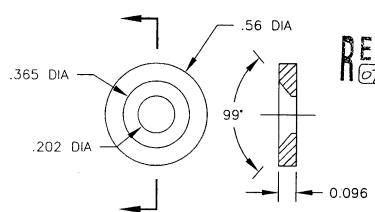
DESIGN #	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
CHECKED	APPROVED.	DRAWING NO.	REV. E SHEET 9 OF 10		
DATE		TITLE	SCALE		
07.11.07		BRACKET ASSEMBLY	1:2		



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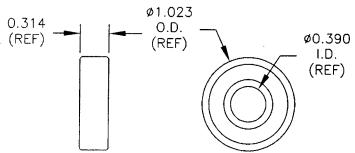






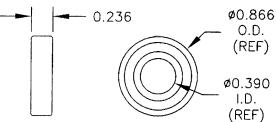
D3121-17 WASHER (SCALE 2:1)

- 1) REPLACES PREMIER P/N B32-23001-17
- 2) MATERIAL: AISI 303 SS ROUND BAR, ANNEALED (REF DART SPEC. M303R)
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015



D3121-19 BEARING (SCALE 1:1)

- 1) POSSIBLE SUPPLIER: KING BEARING P/N 6000-2ZJ/EM FAFNIR P/N 9100KDD
- 2) ALL DIMENSIONS ARE IN INCHES



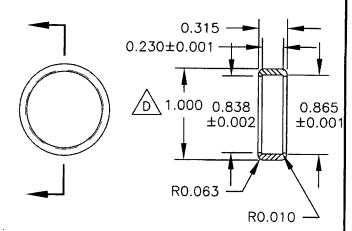
D3121-23 BEARING (SCALE 1:1)

- 1) POSSIBLE SUPPLIER: SKF P/N 61900-2Z OR KML P/N 6900-ZZ
- 2) ALL DIMENSIONS ARE IN INCHES

0.375 TAP 10-32 UNF-3A O7.11.07 M 0.080 0.050 TO 0.060

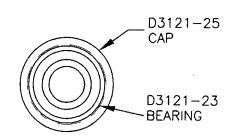
D3121-21 BOLT (SCALE 1:1)

- 1) MATERIAL: AISI 303 SS HEX, ANNEALED (REF DART SPEC. M303H0.500)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015



D3121-25 CAP (SCALE 1:1)

- 1) MATERIAL: DELRIN ROD, Ø1.25 (REF DART SPEC. M-DELRIN-R1.250)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES



D3121-241 BEARING ASSEBLY (SCALE 1:1)

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MAIN INDUSTRIAL SALES LTD.

1475 TESSIER ST.

HAWKESBURY ON K6A 3S6

Phone: (613) 632-3595 Ext. Fax: (613) 632-0262

sales@mainindustrialsales.com

Packing Slip

DATE April 02, 2013 NUMBER 0000161362 CUSTOMER NO. DART

BILL TO:

DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY ON K6A 1K7 SHIP TO:

DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY ON K6A 1K7

(613) \$32-5200 Ext.

(613) 632-5200 Ext.

P.O.	NUMBER	SALESPERSON	ORDER	DATE	REQ. DATE		ORDER NUMBER		
	19466	ЕВ	02-Apr	-13			0000161362		
	F.O.B.	SHIP VIA	···!··································		TERMS				
F.(D.B. value	OUR TRUCK			NET 30 DAYS				
PART NUME		•				QUAN	ITITY	}	
DESCRIPT	ION	LOCATION	U	OM	REQ.	SHII	PPED	/B.O.	
0-69002ZKML KML BALL BE	ARING	6D6	EA		100	100			
YOUR PART	#: 6900ZZ	ter i state en i en				-			
					EP 13	>- \	3) .	



Dart Aerospace Ltd. 1270 Aberdeen Street Hawkesbury, ON K6A 1K7

Tel: 613 632 9577 Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO19466

Purchase Order Date 4/02/13 PO Print Date 4/02/13

Page Number 1 of 1

Order From:

VC-MAI001

MAIN INDUSTRIAL SALES LTD.

1475, TESSIER

HAWKESBURY, ON K6A 3S6

CA

Contact Name

Vendor Phone

Vendor Fax

Vendor Account Nbr

613 632 3595

613 632 0262

Buyer Requisition Nbr

Tax Resale Nbr

Terms Currency

FOB

Chantal Lavoie

10127-2607 Net 30 CAD

Destination-Collect

Ship To:

DART AEROSPACE LTD

1270 ABERDEEN

HAWKESBURY, ON K6A 1K7 CANADA

Line Nbr Reference

Revision ID

Description/ Mfg ID

Req Date/

Req Qty/ Taxable Unit of Measure

Each

Ship Method

Unit Price

Extended Price

Vendor Part Number

6900ZZ

Bearing

4/03/13 Yes 100.00

Yours ppd

\$1.6200

\$162.00

Special Inst:

AS PER DWG D3121 REV. E

B99000

P/N: SKF 61900-2Z OR P/N: KML 6900-ZZ

PO Total:

\$162.00

CERTIFICATE OF CONFORMITY REQ'D UPON DELIVERY

No substitution or deviation without consent.

Certificate of Conformity or Material Certification required - WES NO

Change Nbr:

Change Date: 4/02/13